

Talking Shop

With Ted Hathaway, CEO of Oldcastle Glass

In many ways, Ted Hathaway is larger than life. The 53-year-old chief executive officer (CEO) of Oldcastle Glass® has a reputation for getting results, eliciting stellar business performance, and making impeccable acquisition choices—all combined with a great appreciation for the artistry of design. He also has a reputation as a “behind-the-scenes” person, who has never sought nor accepted the media spotlight.

Were that spotlight to shine on him, however, it would cast an impressive shadow. Hathaway holds a master’s degree in business administration with honors from Columbia University’s Business School and a bachelor’s degree in economics from Connecticut College. He started his career as a commercial banker with Bankers Trust and later worked for a leverage buyout firm. In 1987, he joined Oldcastle Inc.® as its vice president of development. Within three years, he led the \$100 million acquisition of HGP Industries and Oldcastle Glass was born. During the next ten years, he added more than 25 companies to the mix in an acquisition frenzy that left Oldcastle one of the top glass fabricators in the country. Oldcastle Glass currently has 75 locations in 26 U.S. states and four Canadian provinces. It employs nearly 7,000 people. Today, Hathaway serves as CEO of Oldcastle Glass, having been promoted from chief operating officer in 2000.

In addition to his work, Hathaway participates in many philanthropic ventures. He is a member of the board of trustees of New York’s Museum of Arts and Design, which sits diagonally across from the company’s Manhattan offices. The newly redesigned and renovated structure, to which Oldcastle Glass donated more than \$1 million in glass, is scheduled to re-open in September. Hathaway visits New York often, but makes his home in Pacific Palisades, Calif., where he is raising his two children.

Oldcastle Glass is owned by Oldcastle Inc., the North American arm of the Dublin-based CRH plc, one of the world’s largest building products and materials companies.

Oldcastle Inc. operations include more than 1,700 locations in 50 states and four Canadian provinces. Originally a reluctant interview subject, Hathaway was gracious when we sat down in early March to talk about his career, the industry and the rapid growth he has led.

—Debra Levy



Ted Hathaway in his New York offices with a scale model of the renovated New York Museum of Arts and Design constructed entirely of LEGOs®.

Q: *Let's start at the beginning with your name. Your actual given name is Edwin. And, unless I am missing something, Ted is not a normal derivative of Edwin. Is there a story behind how that nickname came about?*

A: You would have to check with my mother. She has departed, though ... I don't really know what the genesis of that was. It's just a nickname.

Q: *Then let's talk about your youth. I understand that you are Connecticut-born and bred. Where in Connecticut are you from?*

A: I spent a fair bit of time in Westport, but was born in Waterbury. I spent my formative years in Watertown.

Q: *And then you went to school here [in New York City], correct?*

A: I went to undergraduate school in Connecticut, and then I went on to get my MBA from Columbia University here in New York.

Q: *I understand that you went into banking after that.*

A: Yes, I started out as a commercial lending officer for Bankers Trust Company. I went through its credit-training program where they hired a group of trainees and paid us full salaries to go back to school. So, we all spent a year down at One Bankers Trust Plaza, which is now the Deutsche Bank Building that was damaged in the 9/11 attack.

Q: *So Bankers Trust paid you to go back to school?*

A: Well, they brought in a group of business school professors to teach us business and credit analysis. So, we all got paid gargantuan salaries basically to study for a year. And then, when you graduated from the program, you were placed within various departments of

the bank. It was their effort to groom and train people.

Q: *I don't know of too many people who have made a jump from banking back to the private sector. That's rather atypical. There must have been some impetus to incite you to move. Was there something that told you banking was not for you?*

A: Well, I wanted an MBA; the bank provided me with a leave of absence, provided me with benefit continuance and allowed all my retirement plans to continue in full force. So I went back to Columbia. In the course of going there for two years, I decided to explore other aspects of finance. So I left Bankers Trust and joined what was called, in those days, a leverage buy-out firm. Today, they are referred to as private equity firms. Then I spent a couple of years there doing deals.

Q: *Were you there through the whole "Barbarians at the Gate" era?*

A: Yes, through that and Gibson Greeting and a number of other high-profile deals, but we ourselves didn't do the high-profile deals. We did the simpler deals. That's where I became intrigued with the idea of doing acquisitions. I had done a number of acquisitions and was sort of part of the senior team. From there, I moved to the West Coast in 1986.

Q: *What led you to make that move?*

A: Just a change. I wanted a change of pace and wanted to try a different part of the country.

Q: *You couldn't get a much more different pace than going from New York to California. Did you have culture shock when you first got there?*

A: Well, I did, actually. A lot of my New York friends were concerned that I would stop reading books and ...

Q: *... go look at the water every day?*

A: There was a sense (there probably still is somewhat) that people on the West Coast are not as literate or as intellectually curious as they are in the East. It's not true, by the way. But when I sent my friends a change of address, a lot of them wrote back and told me to keep reading books. But you know, if you grow up on the East Coast and then you go to the West Coast, it's a very different environment. It's a freer entrepreneurial environment in some respects. Nowadays so many New Yorkers are there, it's probably the same environment.

So, I moved to the West Coast in 1986, and I actually worked for a New York Stock Exchange company that was trying to diversify its product line. It's a company called Kerr Glass, probably best known for its home canning products. It actually had a dominant position in the market of glass containers used for food products.

Q: *Did you work directly for Kerr?*

A: I went to work for the CEO and was given the task of identifying diversification opportunities in packaging. My first idea came about while I was walking up and down the aisle of a nearby grocery store looking for food products that were packaged in plastic. I came across Mott's Applesauce, and I turned the package over and it said "Rampart Packaging." At that time, chemistry was changing and you could package food in what was called barrier plastics. Barrier plastics prevented oxygen from defusing through the plastic and causing bacteria to grow. This was a novel product. I mean, we are talking the 1980s.

So, I went and visited Rampart Packaging, which was based in Williamsburg, Va. We were able to make a

connection. We had had a tremendous relationship with Kraft and a number of other food companies, and now here was this small fledgling company out of Williamsburg, Va., trying to make its way on its own. We had a very good initial meeting, and when I asked their CEO if we could pursue this, he paused and said, 'Well, I need to talk to our parent company.' I said, 'Well, I didn't notice on the D&B that you had a parent company,' and he said, 'Well, we do.' And I asked, 'Who might that be?' and he said, 'It's Shell Oil.'

Q: *Quite a surprise, I'm sure.*

A: So, we actually had some very high-level discussions with Shell Oil to see if there might be any opportunity to do a joint venture. Those discussions didn't really lead into anything, but after that experience I decided I needed to look for something more active. I moved on from Kerr to Oldcastle Inc.

Q: *When was that?*

A: In October of 1987. I have been at Oldcastle now for some 20 years.

Q: *Oldcastle Glass originally was a loose conglomerate of HGP locations at that point, wasn't it?*

A: Actually Oldcastle Glass didn't exist in 1987. Oldcastle was then (and still is) a wholly owned subsidiary of CRH. It was very modest in its scale and scope. It was focused principally on what we would call heavy-side construction materials—aggregates and asphalt and concrete products.

Q: *So in what capacity did you go to work for Oldcastle Inc.?*

A: Doing acquisitions.

Q: *Were you reporting to a management team here in the States, or were you reporting straight to Dublin?*

A: I was working for the CEO of North America, a gentleman named Don Godson. I suppose my first significant deal was the acquisition of HGP Industries, which we closed on April 4, 1990. Oldcastle Inc. became interested in the

glass business because we had an opportunity to buy a company up in Everett, Wash., called O&W Glass.

Q: *Oh, sure, I remember them.*

A: O&W Glass was founded by John Schack. Schack had already sold Oldcastle Inc. a number of precast businesses. In fact, in the 1970s, he had sold Oldcastle Inc. a company called Utility Vault. And then, in the '80s, he was bored and he decided to start up a glass fabrication plant in Everett, Wash. After he got it up and running, and after it was highly profitable, he contacted us.

He wanted to sell it to us. I was asked to go and evaluate the deal. I was intrigued with the glass business. It's a little more dynamic than the aggregates business just because it has more breadth in terms of competitors.

Q: *It definitely has more characters, I would imagine.*

A: It's just different, not better, just different. And so, after having consummated the O&W acquisition on behalf of Oldcastle, I was intrigued with the glass business and, through a network of business brokers, we became aware of HGP Industries. That was the deal I put my heart and soul into in 1989.

Q: *When you are doing an acquisition, do you get totally focused and driven to the point where you can't focus on anything else until it's done?*

A: I think you do get focused, yes. You can get preoccupied to a degree, because it's an opportunity to grow your business strategically and because not all acquisitions are the same. So when you find one you like, you want to consummate it, you want to do everything you can, within reason, to make sure you are able to secure it and make it a success.

Q: *It must feel wonderful; it must feel like winning the World Series when you finally close the deal.*

A: Actually, it feels terrible. No, it doesn't feel terrible. Strike that. It's easy to get the deal done; it's a lot harder to integrate it and to honor the promises you

have made to the board of directors in terms of a return on investment.

Really, the hard work begins the day that you close the deal when you actually own it.

Q: *So, it's almost like the candidate who wins an election and turns to his staff and says "now what do we do?"*

A: In a positive way, yes. It's not a drag. The real hard work is not necessarily getting the deal done as much as it is making the deal a success.

Q: *Are there a couple [of deals] that have gotten away that you wish hadn't over the years? Do you look back and say 'well gee, I wish we'd gotten that one?'*

A: Very few actually. And the few that have gotten away, in hindsight, have been ... I guess the phrase "when Irish eyes are smiling" might be applicable. Sometimes it's knowing when not to do a deal even though it looks attractive, or even when it may have a strategic fit, that's just as important as knowing when to do one. We have had several deals that have gone all the way down to the eleventh hour, that were submitted to the board and approved by the board but, in the eleventh hour, something came up that gave us pause and we backed away. In some instances, some of the sellers decided they didn't want to sell. For a transaction to work, both parties have to want it to work. If somebody changes his mind, be it buyer or seller, there is no harm and no foul in saying "I changed my mind."

Q: *That's interesting because I talked to a lot of people in preparation for this interview and a common theme I heard over and over again was that "Ted will tell you he doesn't know glass." But don't you have to know an awful lot about the glass business to pick off the companies that you have? I think it's pretty common knowledge in the industry that most people are extremely impressed with the quality of the companies that have been acquired by Oldcastle Glass.*

A: [Laughing] Well, first of all, I know a fair bit about glass ...



“There are quite a few capable and very successful companies that are very good at manufacturing float glass. We would not see that as a logical nor plausible strategic direction for us.”

Q: Okay, good, we can dispel that myth.

A: Obviously, if you look at our strategy, it's not all that complicated. We tried to identify the best acquisitions in markets where we didn't have the presence. Let's start from the beginning with HGP. HGP had roughly ten locations, sales of about \$75 million a year. And it became a cornerstone, a platform, for our growth. It was a radical departure for Oldcastle Inc. and CRH because it was a building product that was very different from anything they had contemplated.

Q: And I'm surprised to see that Oldcastle Inc. really doesn't have glass holdings in other countries. Is there a reason for that?

A: It's not for lack of interest. But the structure of the industry is very different in other countries. In Europe it's pretty much downstream, all the way through.

Q: There is a lot of speculation about whether or not Oldcastle Glass either will move up to float manufacturing, or down toward actual installation in the future.

A: Well, I think both of those are non-starters for us. We have no interest in being a float glass manufacturer. I think part of the strategy is, as Porter would say, knowing what to do and what not to do. And our core competence, for lack of a better word, is what we do today. It isn't to get into float glass manufacturing. There are quite a few capable and

very successful companies that are very good at manufacturing float glass. We would not see that as a logical nor plausible strategic direction for us. And, to answer the other question, moving downstream, we have no interest in doing that. We are very happy with the position we are in today.

I think we offer a unique culture where you can sell your business and still have an opportunity to run your business. I mean, one of our first acquisitions after HGP was a company up in Vancouver, Wash., called United Tempering Systems. It had been started by some of the former shareholders of Hunter Glass, Jack Hunter's business, in Oklahoma. When we acquired United Tempering Systems in November of 1990, Jim Avanzini, who was a principle in that business, joined us. He has continued to stay with us. Today, he's one of my senior team members. He's a group president.

Now at the time of sale, Jim was one of five shareholders of United Tempering Systems. So he easily could have taken his chips and gone somewhere else. He decided to stay. I'd say he stayed for the past 20 years because he enjoys his work and he's enjoyed being part of our management team. We are a different type of acquirer. We provide a different culture and a different environment for people. And I think that's why we have been so successful.

The other side of it is that every time you buy a business, you learn things that you didn't know. And even in our most recent glass acquisition in 2004—we bought The Floral Group—not only did we get a great business, but we found some things that Chuck Kaplanek was doing particularly well. We now have incorporated these throughout the organization ... so, the door swings both ways. That's been one of the keys to our success.

Q: Are there any more quality acquisition targets left out there in the glass arena?

A: I think there are a few.

Q: Just a few?

A: There are a couple that do a great job, have great customers, have a great reputation and would complement our geography. I don't think we are going to do anything in Montana in the near future, but I wouldn't be surprised if, depending on the opportunity, we would continue to grow through an acquisition in glass in major metropolitan markets.

Q: Do you feel the same way about metals?

A: Well, I think there is a huge potential for us in aluminum glazing systems, absolutely. Yes.

Q: Can you tell me a little bit about the Vistawall deal? It was just so brilliant, our readers would enjoy knowing how that was put together.

A: We had Vistawall on our acquisition list for years. In April 2006, I wrote a letter to Lance Hockridge, who was the CEO of North America [for BlueScope]. I just wanted to meet him and get to know him and discuss if there was any opportunity to consider Vistawall's divestiture, and so we had a couple of meetings. In December of that year, we were notified that the business was going to be divested and it was going to be handled by an investment banker, so it was a competitive auction. There were quite a few bidders; it was hotly contested. It was a very, very desirable piece of business, and there were many prospective buyers.

Q: And you won.

A: We persevered. Vistawall is a phenomenal business. It's got great people. It's got a national footprint. If you like to look at the map [unfurls a map of

Oldcastle Glass and Vistawall locations], you'll see it gave us the ability to really touch every customer in every metropolitan statistical area in North America. HGP was the cornerstone of our architectural glass strategy. In a similar sense, Vistawall becomes the cornerstone of our architectural aluminum glazing system strategy.

Q: *How is the integration going?*

A: Excellent, excellent. A lot of the integration is underway. The Vistawall acquisition performed brilliantly in its first six months. They are an exceptional group of managers who know their business very, very well. What's exciting for us is the synergies that we have discovered. There are some additional, what I call "knock-on synergies," which are very, very exciting.

Q: *Any you would want to share?*

A: Well, I think people make it happen. If you look at the map, you'll see the Vistawall locations and the glass locations. It looks like someone was following someone else around the country. We really have tremendous local connections.

Q: *That begs this question: do you foresee a day when your glass and metal operations are located in the same place?*

A: Not really, no. I think they are very different businesses with very different processes. I think it would be a mistake to put them together. The Vistawall organization is very, very good at architectural aluminum systems, both manufacturing them and selling them. And the glass folks are very, very good at service and processing and manufacturing architectural glass products. Many times companies think you should put them all together, but they have different personalities, and they do better working cooperatively.

Q: *So many other people would say, 'For the sake of economy and efficiency, we*

have got to put these together; but that's probably been part of what's made Oldcastle what it is, just the acknowledgment that 'hey, they are different businesses and they need to stay separate.'

A: Years ago, before we bought HGP, a friend introduced me to Jim Martineau. Jim was, and continues to be, a visionary. I continue to be a huge fan of Jim and his vision. And Jim started an amazing company called Viracon. He had a vision and he had a purpose and he was extraordinarily successful in his day. Everybody is trying to strengthen the industry and make it more success-

“I'm not saying that if you are a small player, you can't survive. If you're knowledgeable and smart, and you know your cost, you can survive.”

ful; make it more meaningful. I have the utmost respect for what Jim did with Viracon ... it's a similar model.

Q: *I know you have developed a proprietary glass jointly with PPG ...*

A: Our proprietary product is called SunGlass™, yes.

Q: *Such proprietary development is a very unusual strategy. Can you explain to me the reasons for providing such products?*

A: We are a very, very compelling channel partner. People recognize that. They see value in partnering with us, and I use the word "partner" in a very limited way. Anything we have done with our strategic suppliers, we have done on a very limited basis.

We launched a product years ago called StormGlass™ and that was a partnership with a supplier that provided us with an interlayer. This allowed us to manufacture the best hurricane product on the market at the time. Now, we didn't have an exclusive arrangement forever. We had a limited period of exclusivity and then others in the industry were permitted to buy that product.

We are just interested in differentiating ourselves. Where we can find an op-

portunity to work with a supplier that is interested in leveraging our channel, it's a win-win. When Apple launched iPhone, it had to choose a service provider. It chose Cingular/AT&T. Apple was looking for the best partner to launch its product. It's analogous to what we try to suggest to our suppliers—that they should look at us a little differently because we have a national footprint in both architectural glass and aluminum glazing systems.

Q: *Would it be accurate to expect Oldcastle to have a heavy acquisition curve in metals for the next three to five years?*

A: It's our number-one focus right now, to continue to look for complementary companies that we can

bolt on—that are either complementary from a geographical or product point of view.

Q: *And by bolt on, you mean you can just attach them to the existing business?*

A: It's not quite that simple. The concept is that they fit within. For example, we bought a business called Southwest Aluminum Systems in Chandler, Ariz., in 2003. That business is now going to become part of Vistawall, and the gentleman running that operation fits naturally within the Vistawall management team.

Q: *The Antamex acquisition was considered an outstanding move. Can you explain how that came about?*

A: Well, the Antamex acquisition was to give us a leading position in curtain-wall design and engineering because that's where we would like to make our mark as innovators. So Antamex is part of that strategy.

Q: *Have you noticed how Apogee seems to be following Oldcastle's lead ... in the case of their recent acquisition of Tubelite?*

A: I don't know if you can say they are following or leading. I have a great deal of respect for Apogee and for Russ Huffer's leadership. You know, they had a presence

Oldcastle and Vistawall Locations

in architectural windows well before us. They had a presence in finishing—the Linetec operation—before us. Obviously, Viracon is a major player in architectural glass, so I'm not sure whether they are following or leading. I do think everybody is trying to figure out how to approach the next decade, though.

Q: *Do you think it's possible for the few independent glass fabricators and the regionalized aluminum supplier to survive? It's gotten tougher for those independents to exist. What kind of advice would you give them?*

A: Anybody who runs his or her business smartly will survive. We are all interested in making a profit, and if we don't make a profit . . . we suffer the consequence—which ultimately is bankruptcy. There are a few companies that will suffer this outcome this year; some suffered it last year. I suspect this year will present new challenges to people who aren't focused on making a profit.

I'm not saying that if you are a small player, you can't survive. If you're knowledgeable and smart, and you know your cost, you can survive. There still are massive numbers of independent glass fabricators today. And those numbers have grown over the years. But people who try to be all things to all people, in any industry, in any construction business, suffer from a lack of focus and a lack of purpose.

I would tell people that, if they want to stay independent, there is nothing wrong with that. This industry is populated with very good competitors. The better the competition is, the more challenging it is for us to get better, and I think that's a healthy environment. So, I don't see this necessarily as a wave of consolidation that will keep independents from being able to survive. I think independents are an important part of the fabric of our industry.

Q: *I'm going to ask you about the relationship with CRH. Are there any challenges that are unusual, working as a U.S.-based company for a publicly held Irish-based company?*



The white dots represent Oldcastle Glass locations. The black dots represent Oldcastle Glass Engineered Products (which includes some of the Vistawall locations).

A: I don't feel comfortable answering those types of questions. I think that's more of an internal matter and I just don't think it would be appropriate for me to respond. So I'd prefer not to answer.

Q: *Okay, let's switch back to glass and metal. I'm wondering where you think the next big "plastic applesauce packaging" is going to come from in the construction industry?*

A: Oh, well, I think the overriding focus is on the lack of productivity in construction today. Some of our preliminary research suggests that construction is actually less productive today than it was some 10 or 15 years ago. And so I think there's a huge opportunity for Oldcastle Glass to change the roles in the industry by enabling it to become more efficient and more productive.

Q: *It will be exciting to watch for those things. Can you give our readers an idea of what new products will be introduced in the near future?*

A: If you take a look at sustainability, which is obviously the buzz word, certainly LEED is representative of that, although it doesn't go far enough. You will find Oldcastle innovating in both market and product. We are very much focused, for example, on solar, as is

everyone. But I think we have a unique opportunity to do something very different with solar.

Q: *Everybody defines "solar" a little bit differently. Can you give me your definition?*

A: Well, I think first of all, you need to start with the knowledge that commercial office buildings have the largest carbon footprint. They consume roughly 75 percent of the electrical output in North America. And they do so because you and I get up every day and go to work in an office building, unless we work at home. If you are trying to address sustainability, you need to focus on the office structures where people tend to work. And those workers consume a vast amount of electricity, not through the ambient lighting, but through the utilization of heating and cooling. If you can come up with a solution to make office buildings truly sustainable, as opposed to just talking about LEED, then transformative change takes place. Then you really get to do something that's noble, constructive and adds value to the world as opposed to adding just to your individual profit-and-loss statements. To me, this is the best ultimate solution for our CO₂ problems. If you look at the BTU equation on ethanol, it's a bit mind-boggling

that we are growing corn, to ferment corn into alcohol to put it into cars to extend the gasoline.

The sun is the only truly sustainable source of energy. It has no CO₂ issues. Up until this point, our industry has been totally focused on blocking or banning or harnessing the sun. So, you have PPG's product, Solarban®, there is Sun-Guard®, which is Guardian's product, and with both of them you are trying to block the infrared heat,

And really when you talk about solar, you are trying to capture and harvest the sun's energy in a productive way by creating electricity ... The best thing about solar is that every power grid has the same challenge: how to handle peak load. Peak load typically occurs when you have very, very hot, sunny days. It's a direct result of the sun's bright, brilliant sunshine beating down on buildings. To the extent that you can use the sun's energy to generate electricity, it's a very complementary opportunity.

Q: *Are you doing research on this right now?*

A: We are beyond research, we are actually going to be announcing a new product very soon. That's the result of having more than 120 curtainwall engineers working.

Q: *I am sensing that that's the fun of it.*

A: I think the fun of it is just finding ways to grow successfully. There's a great group of people at Oldcastle Glass and watching those people realize their aspirations is actually the most fun for me.

Q: *I have noticed, too, that a number of well-respected people, such as Mary Carol Witry, have come to work for you. It seems you've been able to pick up a number of good people through acquisition.*

A: One of the best measures of your success as a company is whether or not you are the most desirable employer in the field.

Q: *That's a good yardstick for companies to use. But by what measure do you consider yourself successful? What yardsticks do you measure yourself against?*

A: To be successful you must be delivering a return on investment to your shareholders. We have, and are proud of, our very, very strong returns. We have invested the capital provided to us wisely. We are providing great careers for our people, and we are enabling our people to realize their aspirations. I could give you a dozen people in the organization who

“Until China begins to consume its own manufacturing capacity, I think China will continue to export a vast quantity of material.”

started at an entry-level position, and today are running very, very successful businesses.

Roy Orr who joined us in 1987 as a hand cutter in our Shawnee (Okla.) location is one such example. He came out of a business he had owned and sold, and he joined us just, I guess, to give it a shot. Today, Roy is one of our group presidents. To me, that's what makes it a lot of fun—seeing people like Roy Orr and others who can start at a very low level and rise to the top.

Q: *One of the raps you get from some of your competitors is that Oldcastle Glass itself is in businesses that compete with its customers. Do you feel that that's a fair statement?*

A: Well, I'm a little reluctant to respond to it because I really don't want to comment on that.

Q: *Okay then, let's move on. What do you see as some of the biggest threats to the glass and metal industry? What kinds of things keep you up nights?*

A: China will continue to be an increasingly formidable competitive threat. We are already seeing that, obviously, in furniture. All the glass used in furniture is being manufactured and fabricated in China. Standard-sized

products, such as French doors, are coming to the United States with pre-glazed doorlites. Anything that is a standard size, such as a tabletop or a piece of furniture glass, is going to come from China. In fact, the Chinese are now beginning to try to supply both glass and curtainwall. These are major products in North America, and I think this is a huge threat to the industry. If we are not careful, we will pay a huge price.

Q: *It's always interesting to me how you can watch the specs for a job come out and*

they are so tight ... tight performance, MBE, LEED, etc., local ownership desired, tightly honed safety plans and green plans and

then a municipality turns around and uses Chinese curtainwall ...

A: Well, I think the question is one of warranties. Will that firm be the next Interpane? Anyone who has bought glass from Interpane and is now dealing with the consequences of warranty claims and matching coatings or colors understands this. If you are a building owner or developer you have to ask yourself if you want to invest in a curtainwall that is fabricated and manufactured from a supplier with whom you do not have a relationship.

Curtainwall is one of the critical components of a building. It does much more than just close the building envelope. It is involved with every aspect of performance—wind, rain and so forth. You may buy based on price, but you will be getting what you pay for. Few building owners want to deal with a curtainwall issue five years after they have gotten their certificate of occupancy. People need to be very, very aware of the decisions they are making. They need to ask themselves if they are going to have a long-term relationship with a company, or are they just going to make their purchases a la carte, save a dollar or two and then wake up in a couple of years with a product performance question.

Q: From what you are saying—and I hear this from other sources too—the manufacture of standardized products is moving offshore while custom product manufacturing will remain here.

A: Anything that's standardized, in a dimensional sense, is going to come from the lowest-cost producer. Until China begins to consume its own manufacturing capacity, I think China will continue to export a vast quantity of material.

Q: How do you work with building owners to educate them about this? The glass guys and the metal guys understand it. It's the building owners who are saying, 'Hey, it's \$4 less a square foot if I buy it there.'

A: Everybody has to make their own assessments, do their own homework. People just need to be very careful about how they come to their conclusions, that's all. It's up to the individual buying the product to make the purchasing decision. There is price and there is service and then there is who is going to be there for the long haul.

Q: Is there anything else you perceive as a threat on an industry-wide basis?

A: Virtually every product that we, as an industry, manufacture has a significant raw material cost. We are now feeling the impact of 100+ dollar-a-barrel oil on laminated glass, because PVB and other interlayers are manufactured from feedstocks that are oil-related. Aluminum, too, is a global commodity and if the price of aluminum goes up and people choose not to pass that cost on, I think that's a threat.

Input cost inflation is a threat to the industry. I don't think any of us want to end up like Eastern Airlines or PanAm, where their inability to pass along cost led to their demise. Every industry has to be able to pass increases in costs along to its customers or it doesn't survive.

Q: There is a lot of discussion, especially in our pages, about that and why it is so difficult to do. A number of manufacturers, including Oldcastle Glass, do have fuel surcharges. There is some spirited debate in USGlass about this. Some people say

'hey, we understand we have to pay for this, but call it a price increase, as opposed to the fuel surcharge.' Do you have any feelings on that either way?

A: Many industries are very successful at managing their fuel surcharges and their prices. Federal Express and Airborne and United Parcel Service all have such a bifurcated pricing structure. They have a fuel surcharge that fluctuates with market pricing and, every so often, they announce an industry-wide price increase. I think it's important to be able to recoup your costs. Anybody in business today understands that. And anybody who isn't paying attention to his costs isn't running a business well. If you can't manage your costs, I don't think you can manage, period. People who can't manage their costs ultimately go bankrupt.

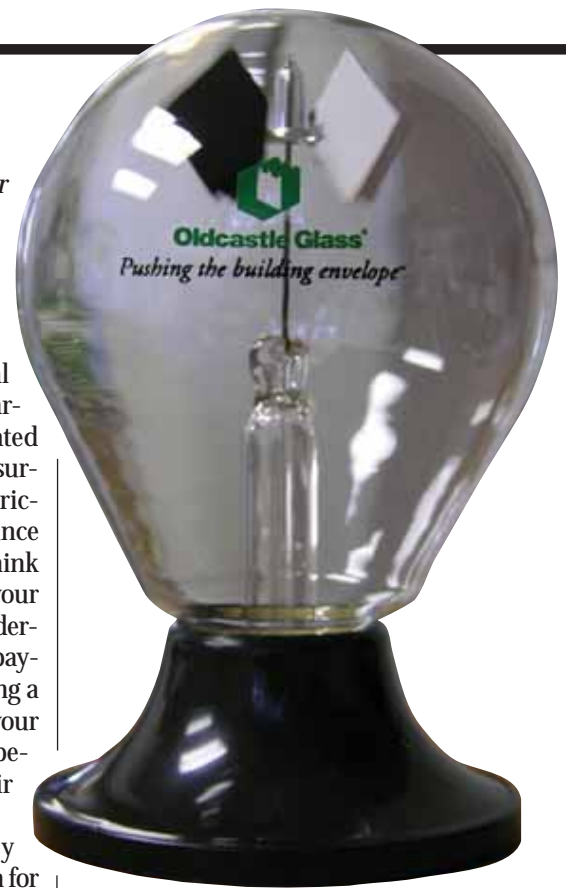
One major threat in an industry such as ours that's subject to inflation for float glass, for sealants, for insulating glass, aluminum extrusions that are used to make insulating glass, as well as aluminum extrusions that are used to make curtainwalls, is that all those are tied back to a market price for raw material. And if we are entering an inflationary period, which I think we are, there won't be many people left standing if people don't pay attention to their costs.

Q: Just a few more questions, if you don't mind. If you were me, what questions should I be asking you that I haven't already?

A: Oh, that's so unfair. Well, I think the most important new notion out there is BIM (building information modeling).

It will be transformative, much as AutoCAD® transformed architecture, much as Catia transformed aerospace. (Editor's note: Catia is a three-dimensional software platform that is used by Boeing and Airbus to design and engineer airplanes. It also has some applications in the building industry.)

The building construction industry is lagging behind in terms of technology and innovation. There are a number of reasons for this. First of all, it's highly fragmented, and second, it's difficult to



The radiometer pictured here is used to demonstrate the solar heat that is reflected by different glass types.

make the change. It's difficult to move everybody in a common direction to achieve efficiency. I think BIM is vital. It will produce significant efficiencies for all participants in the industry and separate the men from the boys.

Certainly solar is hot, and it's probably over-indulged but just like architecture, it has taken a dramatic change. Some of the standard rules of the road are changing.

Q: What are you doing to get ready for the BIM revolution?

A: I have a task force on it and we have some plans. It's the number-one strategic focus for our organization.

We have a global society and everybody has languages, right? How many different languages are there on the planet earth? There is one language that is universal. Math is a universal language and that enables technology to advance because everybody is speaking from a common point of reference. Whether you are from Asia, from Europe, the Far East, math is a universal language. Think

Oldcastle Glass Supplies its Touch to the N.Y. Museum of Arts and Design

After a \$90 million construction project, New York's new Museum of Arts and Design is set to open to the public in September. Located at the southwest corner of Central Park, the transformed 54,000-square-foot building at 2 Columbus Circle is expected to serve more than 500,000 museum visitors each year.

The new building increases the museum's total area by threefold and will double the gallery space available.

The building, designed by Allied Works Architecture in Portland, Ore., and New York, dramatically opens up what was once a nearly windowless building to bring natural light into the gallery and allow visitors expansive views of the city. According to information from the museum, a series of three separate 30-inch "cuts," each one a continuous line fitted with Oldcastle Glass's transparent and fritted glass, weave across the building's facade to create a light-filled, cantilevered structure. These bands of glass continue inside the building across the floors, ceilings and walls of each of the building's 12 floors to provide a visual connection among the galleries. The building's façade is clad with 22,000 custom-made 30- by 6-inch terracotta tiles finished in a pale iridescent glaze that changes with the time of day and point of view. The use of glass and ceramic on the outside is intended to complement two materials that figure prominently in the museum's collection.

The Museum of Arts and Design—formerly the American Craft Museum—focuses on the materials and processes used by practitioners in the fields of craft, art and design, as well as architecture, fashion, interior design, technology, performing arts and art- and design-driven industries. It is dedicated to the collection and exhibition of contemporary objects created in media such as glass, metal, clay, wood and fiber, and hosts a permanent collection of more than 2,000 objects that document the history of the field from the mid-20th century to the present.

The museum places an emphasis on the essentials that link all of the creative arts: materials, techniques and the artist's engagement with process. Through its collections, exhibitions and educational programs, the museum encourages awareness and appreciation of art, craft and design in daily life.

Photo courtesy Museum of Arts and Design. Photograph © David Heald.

about how you make the construction of a structure more efficient. You take cost out, and you accelerate the time it takes to build a building. In other words, you make it go up quicker.

The residential arena has had a consolidation of builders who used best practice to improve the efficiency of home building. Today you have a half-dozen or so major building players that control 80 percent of the market right now. Tremendous efficiencies in residential homebuilding have been achieved over the last decade that don't show up in commercial market.

Q: Yet.

A: Yet. Exactly.

Q: If you weren't doing what you are doing today, what do you think you would be doing?

A:—Well, I don't have an answer to that because I love what I'm doing. I never think about what I might be doing because I love what I do.

Q: I got the sense from my reading that you could actually be a designer or an architect in a different time . . .

A: That's unlikely. I have no flare for drawing. I can't read a set of drawings. I cannot, for love or money, look at a set of drawings and read them. I'd be in a people business though. As it says on our website, the most important asset you have is your intellectual capital. It is the people who make it successful, not the equipment, not the products. Certainly, the customers help, but it's the people who are your key.

Q: You know, people in your company speak so highly of you, but I also occasionally detect a bit of fear there as well . . .

A: Fear?

Q: Fear, yes. I don't know whether it's just typical fear of the "big boss," or whether it's something more than that. From your reaction I would guess you never get that feeling from people, though.

A: I like to be perceived as demanding but fair. And this is a meritocracy. In

our businesses, performance is transparent. I don't want anybody to be afraid. I think that's a bad thing. People do have to understand it's a very, very competitive world today. And ten years ago, markets, products were easier. In every industry known to man, it gets tougher and tougher.

Q: Do you have any reactions, comments or thoughts about the price-fixing lawsuits that are being promulgated against the manufacturers right now?

A: I have no comment whatsoever on that.

Q: In preparation for this interview, I asked a number of people to give me three words to describe you. The word philanthropic came up very high on the list. So I know that you do a lot of good works out there and are involved in a number of interesting projects. Can you give me an overview of some of them?

A: Our hallmark in New York is to donate all the glass on this museum [the Museum of Art and Design]. We were the lead sponsor of the Zaha Hadid exhibition two years ago at the Guggenheim. We sponsored a Columbia School of Architecture symposium on glass as well. So we are very interested in promoting architecture and the technology used in architecture. Wherever we see an opportunity to sponsor something in that arena, we will write the check.

Q: And you are also involved in the Philp Johnson "Glass House"?

A: Yes, we are sponsoring what we call "conversations." We host symposiums. Small groups from the elite of the architectural community are provided with housing and food and they have discuss and debate major global issues about architecture or planning or urban design. We are underwriting that. We think it is very important to encourage discourse . . . we are trying to give back a little bit to the architectural community.

Q: That's going to be a beautiful building over there (pointing to the Museum of Arts and Design under construction).

I read an interesting story about how you got involved.

A: I'm on the board, so obviously you have to be careful because I am biased. What fascinates me about this museum is there are going to be four actual artists studios where artists are going to be in-situ doing their crafts—glass blowing or working with various materials. The museum is going to have a unique place for people to actually watch and observe the craft or the art or the design being produced. It's going to open in September of this year.

Q: I know you have two children. What kinds of things do you like to do for fun, or do you have time for fun?

A: I spend a lot of time on my children. I have custody of my children on an every-other-week basis. So, when I am with my kids, I'm a full-time dad. My daughter is fifteen and my son is thirteen. They are busy. They keep me busy.

Q: Do you have any hobbies outside? Are you a golfer?

A: I'm a leisure golfer. There was an article in the New York Times recently about the dirge of golf courses because people just don't have the time to spend there. I don't. So, I read whenever I can, principally biographies.

Q: Are you in the middle of one right now, or have you just finished one?

A: I just finished the Mayflower book, and it was a bit dry. Because I travel a lot, for me, a quiet weekend with my children at home is as enjoyable as any hobby. My son likes to hike a lot. We do a fair bit of hiking. And my daughter is a teenager . . .

But listen, there is just not that much time anymore. I'm also in New York a lot because there is a plethora of architects, developers and curtainwall consultants. The reason we have an office here is because this is where a number of the decision-makers are. You learn a lot by listening to your customer.

Q: Great line to end with. Thank you for your time.

A: Thank you. ■